

AMENDMENTS TO THE CLAIMS

1-10. (Cancelled)

11. (Withdrawn) A light emitting device comprising a semiconductor light emitting element and a phosphor which converts a part of a luminescence spectrum emitted from the semiconductor light emitting element;

wherein said luminescence spectrum of said semiconductor light emitting element is located between a near ultraviolet region and a short-wavelength visible region,

wherein said phosphor is made by adding a red luminescent activator to a base material of a blue luminescent phosphor.

12. (Withdrawn) The light emitting device according to claim 11;

wherein the emission wavelength can be adjusted by the added ratio of said red luminescent activator.

13. (Withdrawn) The light emitting device according to claims 11;

wherein said semiconductor light emitting element has a main peak wavelength more than 360nm in the ultraviolet region.

14. (Withdrawn) The light emitting element according to claim 11;

wherein said phosphor is an alkaline earth metal boric halide phosphor activated by at least Mn and Eu.

15. (Withdrawn) The light emitting element according to claim 11;

wherein said phosphor is represented by a general formula of
 $(M_{1-x-y}Eu_xM'_y)_2B_5O_9M''$,

where M is at least one selected from the group consisting of Mg, Ca, Ba, Sr, M' is at least one selected from the group consisting of Mn, Fe, Cr, Sn, $0.0001 \leq x \leq 0.5$, $0.0001 \leq y \leq 0.5$, and M'' is at least one halogen selected from the group consisting of F, Cl, Br, I.

16. (Withdrawn) The light emitting device as in one of claim 11; further comprising a phosphor selected from the group consisting of

an alkaline earth halogen apatite phosphor activated by Eu, or Eu and Mn [(Sr, Ca, Ba, Mg, Zn)₅(PO₄)₃(F, Cl, Br, I):Eu, Mn],

an alkaline earth metal aluminate phosphor [SrAl₂O₄:Eu, Sr₄Al₁₄O₂₅:Eu(Mn), CaAl₂O₄:Eu(Mn), BaMg₂Al₁₆O₂₇:Eu, BaMg₂Al₁₆O₁₂:Eu,Mn, BaMgAl₁₀O₁₇:Eu(Mn)],

a phosphor of CaO-Al₂O₃-SiO₂ including nitride activated by Eu and/or Cr [oxynitride fluoroglass],

a phosphor of M_xSi_yN_z:Eu (where M is at least one selected from the group consisting of Mg, Ca, Ba, Sr, Zn, z=2/3x+4/3y),

an yttrium aluminate phosphor activated by cerium,

a rare earth acid sulfide phosphor activated by Eu (La₂O₂S:Eu, Y₂O₂S:Eu and Gd₂O₂S:Eu),

an organic complex phosphor activated by Eu [(Sr, Ca, Ba, Mg)₅(PO₄)₃Cl:Eu, ZnS:Cu, Zn₂GeO₄:Mn, (Sr, Ca, Ba, Mg)Ga₂S₄:Eu and (Sr, Ca, Ba, Mg)₂Si₅N:Eu].

17. (Currently Amended) A light emitting device comprising:

a semiconductor light emitting element; and

a phosphor which ~~converts~~ for converting a part of a luminescence spectrum emitted from the said semiconductor light emitting element; wherein:

said the luminescence spectrum of said semiconductor light emitting element is located between a near ultraviolet region and a short-wavelength visible region;

said semiconductor light emitting element has a main peak in a range from 360nm to 400nm; and

wherein said phosphor is represented by a general formula of (M_{1-x-y}Eu_xM'_y)₂B₅O₉M", where M is at least one selected from the group consisting of Mg, Ca, Ba, and Sr, M' is at least one selected from the group consisting of Mn, Fe, Cr, Sn, 0.0001 ≤ x ≤ 0.5, and 0.0001 ≤ y ≤ 0.5, and M" is at least one halogen selected from the group consisting of F, Cl, Br, and an alkaline earth metal boric halide phosphor including at least one element represented by M selected from

~~the group consisting of Mg, Ca, Ba, Sr and at least one element represented by M' selected from the group consisting of Mn, Fe, Cr, Sn.~~

18. (Currently Amended) The light emitting element according to claim 17_{1,2},

wherein ~~the-a~~ light emitting layer of said semiconductor light emitting element is made of a nitride semiconductor including at least In and Ga.

19. (Currently Amended) The light emitting element according to claim 17_{1,2},

wherein ~~the-a~~ light emitting layer of said semiconductor light emitting element is made of a nitride semiconductor including at least Ga and Al.

20. (Currently Amended) The light emitting element according to claim 17_{1,2},

wherein said phosphor is an alkaline earth metal boric halide phosphor activated by at least Mn and Eu.

21. (Cancelled)

22. (Currently Amended) The light emitting device according to claim 17_{1,2}, further comprising a phosphor selected from the group consisting of:

an alkaline earth halogen apatite phosphor activated by Eu, or Eu and Mn-[~~(Sr, Ca, Ba, Mg, Zn)₅(PO₄)₃(F, Cl, Br, I):Eu, Mn~~], wherein said alkaline earth halogen apatite phosphor is selected from the group consisting of (Sr)₅(PO₄)₃(F), (Sr)₅(PO₄)₃(Cl), (Sr)₅(PO₄)₃(Br), (Sr)₅(PO₄)₃(I), (Ca)₅(PO₄)₃(F), (Ca)₅(PO₄)₃(Cl), (Ca)₅(PO₄)₃(Br), (Ca)₅(PO₄)₃(I), (Ba)₅(PO₄)₃(F), (Ba)₅(PO₄)₃(Cl), (Ba)₅(PO₄)₃(Br), (Ba)₅(PO₄)₃(I), (Mg)₅(PO₄)₃(F), (Mg)₅(PO₄)₃(Cl), (Mg)₅(PO₄)₃(Br), (Mg)₅(PO₄)₃(I), (Zn)₅(PO₄)₃(F), (Zn)₅(PO₄)₃(Cl), (Zn)₅(PO₄)₃(Br), and (Zn)₅(PO₄)₃(I):

an alkaline earth metal aluminate phosphor selected from the group consisting of [SrAl₂O₄:Eu, Sr₄Al₁₄O₂₅:Eu(Mn), CaAl₂O₄:Eu(Mn), BaMg₂Al₁₆O₂₇:Eu, BaMg₂Al₁₆O₁₂:Eu,Mn, BaMgAl₁₀O₁₇:Eu(Mn)];

a phosphor of CaO-Al₂O₃-SiO₂ including nitride activated by one of Eu and/or Cr [oxynitride fluoroglass];;

a phosphor of M_xSi_yN_z:Eu (where M is at least one selected from the group consisting of Mg, Ca, Ba, Sr, Zn, and z=2/3x+4/3y);

an yttrium aluminate phosphor activated by cerium;;

a rare earth acid sulfide phosphor activated by Eu, wherein said rare earth acid sulfide phosphor is selected from the group consisting of (La₂O₂S:Eu, Y₂O₂S:Eu and Gd₂O₂S:Eu)); and

an organic complex phosphor activated by one of Eu, Cu, and Mn, wherein said organic complex phosphor is selected from the group consisting of [(Sr, Ca, Ba, Mg)₅(PO₄)₃Cl:Eu, ZnS:Cu, Zn₂GeO₄:Mn, (Sr, Ca, Ba, Mg)Ga₂S₄:Eu and (Sr, Ca, Ba, Mg)₂Si₅N:Eu].(Sr)₅(PO₄)₃Cl:Eu, (Ca)₅(PO₄)₃Cl:Eu, (Ba)₅(PO₄)₃Cl:Eu, (Mg)₅(PO₄)₃Cl:Eu, ZnS:Cu, Zn₂GeO₄:Mn, (Sr)Ga₂S₄:Eu, (Ca)Ga₂S₄:Eu, (Ba)Ga₂S₄:Eu, (Mg)Ga₂S₄:Eu, (Sr)₂Si₅N:Eu, (Ca)₂Si₅N:Eu, (Ba)₂Si₅N:Eu, and (Mg)₂Si₅N:Eu.

23. (Withdrawn) A light emitting device comprising;

a semiconductor light emitting element of which luminescence spectrum is located between a near ultraviolet region and a short-wavelength visible region,

a first phosphor which converts a part of a luminescence spectrum emitted from the semiconductor light emitting element, said first phosphor being made by adding an activator for red light emission to a base material of a blue emitting phosphor,

a second phosphor which can convert a part of the light emitted from the first phosphor to a light having a wavelength in a range from blue region to red region,

wherein a mixed light of the light emitted from the first phosphor and the light emitted from the second phosphor is outputted, said mixed light having a wavelength within a range of white region.

24. (Withdrawn) The light emitting device according to claim 23; further comprising a phosphor selected from the group consisting of

an alkaline earth halogen apatite phosphor activated by Eu, or Eu and Mn [(Sr, Ca, Ba, Mg, Zn)₅(PO₄)₃(F, Cl, Br, I):Eu, Mn],

an alkaline earth metal aluminate phosphor [SrAl₂O₄:Eu, Sr₄Al₁₄O₂₅:Eu(Mn), CaAl₂O₄:Eu(Mn), BaMg₂Al₁₆O₂₇:Eu, BaMg₂Al₁₆O₂₇:Eu,Mn, BaMgAl₁₀O₁₇:Eu(Mn)], a phosphor of CaO-Al₂O₃-SiO₂ including nitride activated by Eu and/or Cr [oxynitride fluoroglass],
a phosphor of M_xSi_yN_z:Eu (where M is at least one selected from the group consisting of Mg, Ca, Ba, Sr, Zn, z=2/3x+4/3y),
an yttrium aluminate phosphor activated by cerium,
a rare earth acid sulfide phosphor activated by Eu (La₂O₂S:Eu, Y₂O₂S:Eu and Gd₂O₂S:Eu),
an organic complex phosphor activated by Eu [(Sr, Ca, Ba, Mg)₅(PO₄)₃Cl:Eu, ZnS:Cu, Zn₂GeO₄:Mn, (Sr, Ca, Ba, Mg)Ga₂S₄:Eu and (Sr, Ca, Ba, Mg)₂Si₅N₈:Eu].